LESSON MAKER PRO

Groups and Leftovers

Solve stories in more than one step.

GRADE 4 · MT.4.OA.3

MT.4.OA.3 "Solve multistep problems in context with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted..."

NAME _____ DATE _____

THE BIG IDEA

Follow the story to choose your operations. Use ___ for the unknown. A remainder may be leftovers, or it may mean you need one more group.

WORKED EXAMPLE

The table shows the stickers in a club's boxes. The club uses 10 stickers, then puts the rest on sheets of 6. How many full sheets can it fill?

CLUB STICKERS

Boxes	Stickers in each box
3	14

1. 3 * 14 = 42 stickers
2. 42 - 10 = 32 stickers left
3. 32 = 6 * ___ + 2
4. ___ = 5

Answer: 5 full sheets, with 2 stickers left over

PRACTICE 4 problems

1 A club has 7 packs of 9 pencils. It gives away 11 pencils. How many remain? Write an equation with ___.

ANSWER _____

2 A class has 48 markers and gets 17 more. It shares them equally among 8 tables. How many does each table get, and how many are left? Write an equation with ___.

ANSWER _____

3 The library buys 4 boxes of 12 books. It already has 27 books. How many books does it have now? Write an equation with ___.

ANSWER _____

4 A team has 96 cups and uses 18. It puts the rest in stacks of 7. How many full stacks can it make, and how many cups are left? Write an equation with ___.

ANSWER _____

APPLY IT Show your work

1 At a school sale of art by Montana Indigenous artists, 4 artists bring 24 prints each. They sell 29 prints and pack the rest in folders of 9. How many full folders can they fill, and how many prints are left? Write an equation with ___.

WORK SPACE

ANSWER _____

2 For a local robotics event, 74 students sign up. Another 23 join. Each bus holds 12 students. How many buses are needed? Write an equation with ___.

WORK SPACE

ANSWER _____

CHALLENGE One step up

At a Montana community festival, a student club has 7 boxes of 18 bookmarks and 25 single bookmarks. It gives away 37, then makes bundles of 9. How many full bundles can it make? Write an equation with ___ and use an estimate to check.

WORK SPACE AND ANSWER

ANSWER KEY

Groups and Leftovers

GRADE 4 · MT.4.OA.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A club has 7 packs of 9 pencils. It gives away 11 pencils. How many remain? Write an equation with ___.	**7 * 9 - 11 = ___; 52 pencils**
2	A class has 48 markers and gets 17 more. It shares them equally among 8 tables. How many does each table get, and how many are left? Write an equation with ___.	**48 + 17 = 8 * ___ + 1; 8 markers per table, 1 left**
3	The library buys 4 boxes of 12 books. It already has 27 books. How many books does it have now? Write an equation with ___.	**4 * 12 + 27 = ___; 75 books**
4	A team has 96 cups and uses 18. It puts the rest in stacks of 7. How many full stacks can it make, and how many cups are left? Write an equation with ___.	**96 - 18 = 7 * ___ + 1; 11 full stacks, 1 cup left**

PART 2 · APPLY IT

1. **7 full folders, 4 prints left** 4 * 24 - 29 = 67. Then 67 = 9 * ___ + 4, so ___ = 7.
2. **9 buses** 74 + 23 = 97, and 97 = 12 * 8 + 1. Eight buses leave one student without a seat, so 9 are needed.

CHALLENGE

7 * 18 + 25 - 37 = 9 * ___ + 6; ___ = 12 full bundles, with 6 bookmarks left. Estimate: 7 * 20 + 20 - 40 = 120, and 120 / 10 = 12, so 12 bundles is reasonable.

Accept equivalent equations that use ___ for the unknown. For the bus problem, accept 97 = 12 * (___ - 1) + 1 as the equation.